

L Number	Hits	Search Text	DB	Time stamp
1	0	resealabble	USPAT	2003/04/17 12:16
2	3419	resealable	USPAT	2003/04/17 12:16
3	20321	"3" and prepolymer	USPAT	2003/04/17 12:16
4	15	resealable and prepolymer	USPAT	2003/04/17 12:16
5	1	(resealable and prepolymer) and diisocyanate	USPAT	2003/04/17 12:18
6	3	(resealable and prepolymer) and tackifier	USPAT	2003/04/17 12:22
7	446	prepolymer and adhesive and diisocyanate and pressure adj sensitive	USPAT	2003/04/17 12:23
8	334	(prepolymer and adhesive and diisocyanate and pressure adj sensitive) not hot adj melt	USPAT	2003/04/17 12:24
9	15	((prepolymer and adhesive and diisocyanate and pressure adj sensitive) not hot adj melt) and food	USPAT	2003/04/17 12:24

L Number	Hits	Search Text	DB	Time stamp
1	444	adhesive and prepolymer and diisocyanate	USOCR	2003/04/17 13:50
2	25	(adhesive and prepolymer and diisocyanate) and pressure adj sensitive	USOCR	2003/04/17 13:50

L Number	Hits	Search Text	DB	Time stamp
1	561	adhesive and prepolymer and diisocyanate	DERWENT	2003/04/17 11:06
2	0	(adhesive and prepolymer and diisocyanate) and resealable	DERWENT	2003/04/17 11:07
3	24	(adhesive and prepolymer and diisocyanate) and pressure adj sensitive	DERWENT	2003/04/17 11:07

51

BUNDESREPUBLIK DEUTSCHLAND

Int. Cl.:

C 08 g, 22/04

C 09 j, 3/16

DEUTSCHES PATENTAMT



52

Deutsche Kl.:

39 b5, 22/04

22 i2, 3/16

10

11

21

22

43

Offenlegungsschrift 1 770 425

Aktenzeichen: P 17 70 425.5

Anmeldetag: 15. Mai 1968

Offenlegungstag: 10. Februar 1972

Ausstellungspriorität: —

30

Unionspriorität

32

Datum:

16. Mai 1967

33

Land:

Großbritannien

31

Aktenzeichen:

22624-67

54

Bezeichnung:

Druckempfindliche Klebstoffe und Verfahren zu ihrer Herstellung

61

Zusatz zu:

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62

Ausscheidung aus:

—

71

Anmelder:

The Dunlop Co. Ltd., London

Vertreter gem. § 16 PatG: Zumstein sen., F., Dr.; Assmann, E., Dipl.-Chem. Dr. rer. nat.;
Koenigsberger, R., Dipl.-Chem. Dr.; Holzbauer, R., Dipl.-Phys.;
Patentanwälte, 8000 München

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Als Erfinder benannt:

Grindley, John Victor, Chase-Terrace, Walsall, Staffordshire;
Pritchard, James, Sutton Coldfield, Warwickshire (Großbritannien)

Benachrichtigung gemäß Art. 7 § 1 Abs. 2 Nr. 1 d. Ges. v. 4. 9. 1967 (BGBl. I S. 960): 4. 3. 1970

Nur Ansprüche, da die Unterlagen zur fotomechanischen Vervielfältigung nicht geeignet sind (vgl. Mitteilungen des Präsidenten des Deutschen Patentamts Nr. 6/70 vom 28. April 1970, Bl. f. PMZ 1970, 141, und Nr. 21/71 vom 8. Oktober 1971, Bl. f. PMZ 1971, 325).

• 1.72 109 887/1813

2 90

P a t e n t a n s p r ü c h e

1. Verfahren zur Herstellung eines druckempfindlichen Klebstoffes, dadurch gekennzeichnet, daß ein Polyol und ein Polyisocyanat miteinander umgesetzt werden unter Bildung eines reaktiven Vorpolymerisats, wobei ein stöchiometrischer Überschuß an Polyol oder Polyisoxyanat verwendet wird und je nach den reaktiven Gruppen in der Vorpolymerisat das Vorpolymerisat mit weiterem Polyisocyanat oder Polyol umgesetzt wird unter Bildung eines vernetzten Reaktionsprodukts, in dem jede Kette eine Kettenlänge von mindestens 130 Kettenatomen besitzt, wobei einer der Reaktionsteilnehmer in mindestens einer Reaktionsstufe trifunktionell ist.
2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, daß das reaktive Vorpolymerisat mit einem Überschuß an Polyisocyanat gebildet wird.
3. Verfahren nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß die verwendeten Gesamt mengen an Polyol und Polyisocyanat im wesentlichen stöchiometrische Mengen sind.
4. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß als Polyisocyanat 4,4'-Diisocyanat-diphenyläther, Toloul-diisocyanat, Hexamethylen-diisocyanat, Triphenylmethan-triisocyanat, 2,4'-Triisocyanat-diphenyläther, Poly-methylen-polphenyl-isocyanat oder Mischungen davon verwendet werden.
5. Verfahren nach einer der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß als Polyol Sorbit, Arabit, Pentaerythrit, Glycerin, deren Mischpolymerisate mit Äthylenoxyd und/oder Propylenoxyd oder Mischungen davon verwendet werden.

6. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß als Reaktionsteilnehmer Polyäthylenglykol, Polypropylenglykol, Methyloxitol, n-Butanol oder Mischungen davon verwendet werden.
7. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß ein Beschleuniger verwendet wird.
8. Verfahren nach Anspruch 7, dadurch gekennzeichnet, daß als Beschleuniger Dibutylzinndilaurat oder Zinn(II)-acetat verwendet wird.
9. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß in die Reaktionsmischung ein Antioxydant eingearbeitet wird.
10. Druckempfindlicher Klebstoff, dadurch gekennzeichnet, daß er ein vernetztes Reaktionsprodukt eines Vorpolymerisats aus einem Polyol und einem Polyisocyanat mit weiteren Polyisocyanat oder Polyol darstellt, in der jede Kette eine Kettenlänge von mindestens 130 Kettenatomen besitzt.

Vom Deutschen Patentamt
ohne jede Gewähr abge-
geben. Anschrift der Ver-
leger, die für die Ver-
antwortung der Ver-
antwortung nicht
geeignet sind.

BAD ORIGINAL

109887/1813

L2 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2003 ACS
 AN 1976:18398 CAPLUS
 DN 84:18398
 TI Polyurethans **pressure-sensitive** adhesives
 IN Ichii, Ryuji; Ohmori, Takao; Sugiri, Masayoshi; Oka, Fukuichi
 PA Mitsui Toatsu Chemicals, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC C09J; C08L
 CC 36-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50087430	A2	19750714	JP 1973-136105	19731207
PRAI	JP 1973-136105		19731207		

AB Polyurethane **pressure-sensitive** adhesives with good bonding strength were prepd. by reaction of an isocyanate-terminated urethane **prepolymer** obtained by reaction of a mixt. of polyols (av. no. of functional groups 2-2.6) with an excess amt. of an org. diisocyanate with a mixt. of polyols (av. no. of functional groups .gtoreq.2, the total of the functional groups of the polyols and those of the polyols contained in the **prepolymer** .ltoreq.5). Thus, 100 parts of an isocyanate-terminated **prepolymer** (4.5% isocyanate end groups, obtained from 1000 parts PPG Diol 3000-EO (polyethylene-polypropylene glycol) [9003-11-6] (hydroxy value 37.2) was mixed with 111.4 parts GP-3025 (glycerol propylene oxide ether) [25791-96-2] (hydroxy value 56.8) and 1.0 part lead octanoate (catalyst) and defoamed, the mixt. was molded, and cured to give an **adhesive** sheet with bonding strength 1500 g (toward polyethylene [9002-88-4] board).

ST polyurethane **pressure sensitive adhesive**;
 polyether polyurethane **adhesive**

IT Urethane polymers, uses and miscellaneous
 RL: USES (Uses)
 (polyether-, adhesives, for polyethylene)

IT Polyethers
 RL: USES (Uses)
 (polyurethane-, adhesives, for polyethylene)

IT Adhesives
 (**pressure-sensitive**, polyether polyurethanes, for polyethylene)

IT Oxirane, polymer with methyloxirane, isocyanate-terminated, polymer with glycerol propylene oxide ether
 Oxirane, methyl-, polymer with oxirane, isocyanate-terminated, polymer with glycerol propylene oxide ether
 Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy-, polymer with isocyanate-terminated polyethylene-polypropylene glycol
 RL: USES (Uses)
 (adhesives, for polyethylene)

IT 9002-88-4
 RL: USES (Uses)
 (adhesives for, polyether polyurethanes as)

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L2 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2003 ACS
AN 1969:502805 CAPLUS
DN 71:102805
TI Adhesives based on polyisocyanates
PA Dunlop Co. Ltd.
SO Fr., 7 pp.
CODEN: FRXXAK
DT Patent
LA French
IC C09J; C08G
CC 37 (Plastics Fabrication and Uses)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1565259		19690425		
PRAI	GB		19670516		
AB	Adhesives, adherent by pressure, were prepd. by reacting a polyol with a polyisocyanate to form a prepolymer in which one of the reactants was in excess and then reacting the prepolymer with addnl. polyisocyanate or polyol, depending on the type of groups which are reactive with the prepolymer . Thus, 5 parts dicyclohexylmethane diisocyanate was reacted with 10 parts of a com. polypropylene glycol diol (mol. wt. 2000) for 2 hrs. at 70.degree. in the presence of an organometallic catalyst to give a prepolymer contg. 125 atoms in the principal chain. The prepolymer (6 parts) was reacted with 10 parts of a triol (mol. wt. 6000) at 70.degree. in the presence of an organometallic catalyst and an antioxidant. The product was a good adhesive contg. 331 atoms in the principal chain. Other polyisocyanates claimed were diphenylmethane 4,4'- diisocyanate , tolylene diisocyanate , hexamethylene diisocyanate , triphenylmethane triisocyanate, and 2,4-triisocyanatodiphenyl ether. Polyols claimed are sorbitol, arabitol, (HOCH ₂) ₄ C, glycerol, and a copolymer of a polyol with ethylene oxide and (or) propylene oxide. Other reactants claimed are polyethylene glycol, polypropylene glycol, 2-methoxyethanol, and BuOH. Accelerators claimed are dibutyltin dilaurate and Sn octanoate.				
ST	polyisocyanate adhesives; adhesives polyisocyanate; pressure adhesives				
IT	Adhesives, preparation (polyisocyanate and polypropylene glycol prepolymer , pressure-sensitive)				
IT	Glycols, polypropylene, polymer with methylenedi-4,1-cyclohexylene isocyanate Isocyanic acid, methylenedi-4,1-cyclohexylene ester, polymer with polypropylene glycol				
RL:	TEM (Technical or engineered material use); USES (Uses) (adhesives, pressure-sensitive)				

L2 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2003 ACS
AN 1969:439796 CAPLUS
DN 71:39796
TI **Adhesive** compositions
IN Grindley, John V.; Pritchard, James
PA Dunlop Co. Ltd.
SO S. African, 10 pp.
CODEN: SFXXAB
DT Patent
LA English
CC 36 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	ZA 6804510	19681203	ZA	19680715
AB	Pressure-sensitive adhesives are prepd. by crosslinking chain-extended urethane prepolymers that have an excess of either NCO or OH groups. The chain-extended prepolymers are crosslinked with sufficient amts. of either polyisocyanates or polyols to produce a 1:1 NCO-OH ratio in the reaction mixt. For example, 5 parts dicyclohexylmethane diisocyanate (11 chain atoms) was treated with 10 parts com. polypro-polyene glycol (mol. wt. 2000, 103 chain atoms) for 2 hrs. at 70.degree. in the presence of an organometallic catalyst to yield a chain-extended diisocyanate prepolymer (I) (125 chain atoms). I (6 parts) was treated at 70.degree. with 10 parts of a triol (mol. wt. 6000, 103 chain atoms) in the presence of an organometallic catalyst and an antioxidant to yield a polyurethane pressure-sensitive adhesive that had chain length 331 atoms. Similar adhesives were prepd. by treating com. polyether-extended diisocyanate prepolymers with a triol and crosslinking the resulting trifunctional isocyanate prepolymer with the same triol. Similar adhesives were also prepd. by combining chain-extended isocyanate and chain-extended polyol prepolymers. Treatment of 4,4'-diisocya-natodiphenylmethane, tolylene diisocyanate , hexamethylene diisocyanate , triphenylmethane triisocyanate, 2,4'-triisocyanato-diphenyl ether, or poly(phenylmethylene) polyisocyanate with polyethylene glycol, methyl oxitol, BuOH, or polyols prepd. by copolyimg. sorbitol, arabitol, pentaerythritol, or glycerol with ethylene oxide and (or) propylene oxide was claimed.			
ST	polyurethanes adhesives; adhesives pressure sensitive			
IT	Urethane polymers, uses and miscellaneous			
	RL: USES (Uses)			
	(adhesives from polyether-based, pressure-sensitive)			
IT	Adhesives, preparation			
	(pressure-sensitive , from polyether-based urethane polymers)			

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L4 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2003 ACS
 AN 1986:480744 CAPLUS
 DN 105:80744
 TI Curing urethane coatings
 IN Mabuchi, Akira; Takimoto, Masahiro; Yano, Kenji
 PA Toyoda Gosei Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM C08J007-04
 ICS C09D003-72
 ICA B05D003-10; B05D007-02
 CC 42-3 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61053334	A2	19860317	JP 1984-175620	19840823
PRAI	JP 1984-175620		19840823		

AB Urethane coatings contg. isocyanate prepolymers formed on vinyl chloride polymer compn. substrates for automobile glass runs can be cured at <100.degree. by blending 0.5-8% dibutyltin dilaurate (I) or triethanolamine into the substrate. Thus, a compn. contg. a reaction product of adipic acid-1,4-butanediol copolymer and 4,4'-diphenylmethane diisocyanate, castor oil polyol, **toluene diisocyanate** -trimethylolpropane **prepolymer**, a fluoropolymer, silicone oil, carbon black, I, and DBU.PHOH was applied to a substrate composed of vinyl chloride polymer 100, DOP 70, epoxidized soybean oil 5, Ba stearate 1, Zn stearate 1, and I 2 parts, and left at 90.degree.. The coating showed abrasion resistance 10,000 times after curing for only 3 min, vs. 20 min without the I.

*reads
on claim 11
13, 18*

ST urethane coating automobile glass run; PVC polyurethane coated glass run; polyurethane antifriction coating glass run; butyltin dilaurate catalyst PVC substrate; catalyst dibutyltin dilaurate contg substrate

IT Castor oil

RL: USES (Uses)

(polyol derivs., polymers with adipic acid-butanediol copolymer-MDI adduct and TDI-trimethylpropane adduct, antifriction coatings, for vinyl chloride polymer glass runs contg. urethane curing catalysts)

IT Antifriction materials

(abrasion-resistant, coatings, low-temp.-curable urethane prepolymers, PVC automobile glass runs contg. curing catalysts for)

IT Coating materials

(abrasion-resistant, antifriction, low-temp.-curable urethane prepolymers, on PVC automobile glass runs contg. curing catalysts for)

IT Abrasion-resistant materials

(antifriction, coatings, low-temp.-curable urethane prepolymers, PVC automobile glass runs contg. curing catalysts for)

IT Windows

(automotive, glass runs for, catalyst-contg. PVC compns. with low-temp.-curing polyurethane antifriction coatings)

IT Antifriction materials

(coatings, abrasion-resistant, low-temp.-curable, urethane prepolymers, on PVC automobile glass runs contg. urethane crosslinking catalysts)

IT Crosslinking catalysts

(low-temp., for polyurethane antifriction coatings, PVC window glass runs contg.)

IT **101-68-8D**, reaction products with adipic acid-1,4-butanediol copolymer, polymers with TDI-trimethylolpropane adduct and castor-oil

except don't know NEO/OU

polyols 9017-09-8D, polymers with adipic acid-1,4-butanediol
copolymer-MDI adduct and castor oil polyols 25103-87-1D, reaction
products with MDI, polymers with TDI-trimethylolpropane adduct and
castor-oil polyols 103727-93-1D, polymers with TDI-trimethylolpropane
adduct and castor-oil polyols

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, for vinyl chloride polymer glass runs contg. urethane curing
catalysts, low-temp.-curable, abrasion-resistant)

IT 77-58-7 102-71-6, uses and miscellaneous

RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalysts, for polyurethane antifriction coatings, PVC
glass runs contg.)

IT 9002-86-2

RL: USES (Uses)
(glass runs, contg. urethane curing catalysts, antifriction coatings
for, low-temp. curing urethane **prepolymer** mixts.)

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L4 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2003 ACS

AN 1992:635613 CAPLUS

DN 117:235613

TI Manufacture of urethane rubbers from isocyanate **prepolymer** and aromatic diamine

IN Shevchuk, A. V.; Krolenko, A. V.; Fainleib, A. M.; Pukas, N. D.; Prokopenko, V. A.

PA USSR

SO U.S.S.R.

From: Izobreteniya 1992, (3), 90.

CODEN: URXXAF

DT Patent

LA Russian

IC ICM C08G018-72

CC 39-4 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 1707020	A1	19920123	SU 1989-4699534	19890605
PRAI	SU 1989-4699534		19890605		

AB Urethane rubbers, having increased flexibility and reduced curing temp., are manufd. by reacting a **prepolymer** comprising the reaction product of 4,4'-diphenylmethane diisocyanate, polyoxytetramethylene glycol (mol. wt. 800-1200) and **toluene diisocyanate** with an arom. diamine soln. in Me₂CO.

ST urethane rubber manuf isocyanate **prepolymer**; TDI **prepolymer** urethane rubber manuf; MDI **prepolymer** urethane rubber manuf; polyoxymethylene **prepolymer** urethane rubber manuf; amine arom urethane rubber manuf

IT Amines, polymers

RL: USES (Uses)

(di-, aryl, polymers with isocyanate **prepolymer**, rubber, manuf. of flexible)

IT Rubber, urethane, preparation

RL: PREP (Preparation)

(polyurea-, manuf. of flexible, from isocyanate **prepolymer** and arom. diamine)

IT **101-68-8D**, 4,4'-Diphenylmethane diisocyanate, reaction products with polyoxytetramethylene glycol and TDI, polymers with arom. diamine **25190-06-1D**, Polyoxytetramethylene glycol, reaction products with MDI and TDI, polymers with arom. diamine **26471-62-5D**, reaction products with polyoxytetramethylene glycol and MDI, polymers with arom. diamine

RL: USES (Uses)

(rubber, manuf. of flexible)

" 13, 14, 18,

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